

ABSTRACT OF THE DISCLOSURE

A highly-efficient projection system is provided, including a light source, a color separator, a scrolling unit, a light valve, and a projection lens unit. The color separator separates an incident beam according to color. The scrolling unit includes at least one lens cell and converts the rotation of the lens cell into a rectilinear motion of an area of the lens cell through which light passes so that an incident beam is scrolled. The light valve includes a plurality of micromirrors independently driven according to image signals to change a reflection angle of incident light. The light valve processes a beam transmitted by the color separator and the scrolling unit according to an image signal and forms a color picture. The projection lens unit magnifies the color picture formed by the light valve and projects the magnified color picture onto a screen.